

ST. GERMANS
RURAL DISTRICT COUNCIL.

Medical Officer of Health's
ANNUAL REPORT

1908.

R. THORNTON MEADOWS, M.B., C.M., M.D., D.P.H.,
Medical Officer of Health.

To the Chairman and Members

OF THE

St. Germans Rural District Council.

GENTLEMEN,

I PRESENT you with my Annual Report for 1908, with a certain amount of satisfaction, as the district, as a whole, continues to show the same progressive improvement as it has for the last several years.

This past year is marked by—

1. Increased birth-rate.
2. Decreased death-rate.

The birth-rate of 17·95—slightly above that of 1907, namely, 17·59—though a low rate in itself, shows the first increase in birth-rate that we have had in this district for the last 12 years.

The births numbered 267, amongst which, from the Registrar's returns, four were illegitimate, as against 7 last year.

The national birth-rate for 1908 is 26·5

The deaths number 157, giving a death-rate of 10·53 per 1,000. This is, with the exception of 1903, the lowest recorded death-rate for 11 years, and compares favourably with the national death-rate for the same period, namely, 14·7.

Our death-rate must be looked on as remarkably low, in view of the fact that so large a proportion of our young men are in the services, where they spend their best years, only returning home if invalided, or as pensioners, to live out the rest of their lives with us.

Fifty-six of these deaths were of persons of 65 years or more of age, and 26 of an age under one year. These infantile deaths give us a rate of 104·80 per 1,000 births, and, although

it is lower than the national rate of 121·0, still it is higher than usual in our district.

None of these deaths were of illegitimate children, neither were the causes maternal neglect, overlying, or any infectious disease. Seven were due to premature birth, and in seven cases the children were so feeble from birth as not to be able to survive the first few weeks of their lives.

Infectious diseases accounted for 10 deaths, compared with 18 last year; diphtheria caused 7; influenza, 2; and whooping cough, 1. Phthisis is responsible for 19 deaths, a high percentage for a rural district.

Cancer was the cause of death in eight cases.

Infectious Disease.—Forty-five of these cases have been reported and investigated by me, as compared with 43 last year. This I consider satisfactory, as we have to depend entirely on such methods of isolation and disinfection as can be carried out in the patients' homes. As these cases were almost entirely found in the homes of the poor, where, in many cases, proper isolation is impossible, and in others neglected with a carelessness which is surprising, seeing the inconvenience, and often loss of employment, which the presence of these diseases entails on the parents, it would seem that we are fortunate in not having more serious and epidemic forms of infectious disease.

An analysis of these cases is made in the following table:—

	St. Germans.	South District	North District	Total.
Diphtheria	0	15	1	16
Scarlet fever	8	1	8	17
Erysipelas	3	2	2	7
Enteric fever	0	3	1	4
Puerperal fever	0	1	0	1
	—	—	—	—
	11	22	12	45

From this it will be seen that, as usual, the St. Germans district leads the way with regard to freedom from infectious diseases. The eight cases of scarlet fever represent only two infected houses where, from personal contact, all susceptible in the houses contracted it.

Downderry, as in past years, shows a clean sheet as regards their diseases, which is pleasing, as so many children are to be found there in the summer.

The North District with its 12 cases comes next. The eight cases of scarlet fever here represent four infected houses, and in no case did the infection spread beyond the house it originally started in. We had one case of diphtheria here, probably due to contact with a case in Saltash. The one case of enteric fever was present in a cottage where the sewer arrangements were in a very defective condition.

The South District, in regard to these diseases, practically means Millbrook, which still continues to give trouble on account of diphtheria. We had here, also, two cases of enteric fever. One case was in a house supplied by a superficial well, the water of which was so contaminated with sewage as to cause its condemnation. The origin of the second case was doubtful. The one case of scarlet fever was imported. We managed to keep it confined to the one house. One case of enteric was reported from Kingsand. As this case was of three months' duration, its origin was not traced. The diphtheria at Millbrook was the subject of a special report to the Local Government Board:

Report on Diphtheria in Millbrook.

"This year we have had 13 cases, involving 10 houses. They did not present themselves as an epidemic, as in no month did we have more than two houses, nor more than four cases. These cases were not confined to any one part of Millbrook, nor did they occur more markedly in the old than in the new parts. Four cases were in the new terrace, which, built on well-drained soil, leaves nothing to be desired as to sewerage and water supply. One was in a villa on the hillside, away from the more crowded parts. The rest were scattered over the old parts—some on the low-lying ground, some on the highest points. All the affected houses had the water supply, efficient drainage, and in no cases were sanitary defects found.

"As to the origin of these cases, no cause for the original cases could be found, and the length of time between the first three cases—four weeks between 1 and 2, four weeks between 2 and 3, and seven weeks between 3 and 4, with no personal contact as far as I could learn, and I believe that that is so—made it impossible to trace them to one original cause. Personal intercourse when in an undefined condition of throat caused the spread from No. 5 to No. 6, and personal contact, no doubt, caused No. 11 from No. 10, No. 13 from No. 12, and No. 9 from No. 7, as these groups of two were in the same houses where isolation must be imperfect, if not impossible, the cases having, in the absence of an infectious disease hospital, to be treated in their own homes.

"The number of deaths has been six, out of which two were not reported till after death, the illness having been only of a few hours' duration, which leaves a certain amount of doubt as to the diagnosis. In any doubt in the other cases cultures were taken which left no doubt as to the real condition.

"All possible sources of this disease were inquired into by me, particularly milk supply, water, damp foundations, and unclean surroundings, but could not be found responsible. Isolation in their own houses was carried out as far as could be insisted on, there being no isolation hospital, and disinfection carried out by the sanitary inspector.

"There remained two possible causes to which it might be attached, namely, the condition of the infants' school, and the dirty condition of the foreshores abutting the ground on which the children play.

"Though the infants' school (see table) could hardly be looked upon as a primary source, still, as case four was a mistress in that school and there were several ways in which the school

could be improved with the co-operation of the managers, the following alterations were made :—

“ 1st—More perfect ventilation by vertical pipes.

“ 2nd—Removal of the cloak-room, in which damp clothes were often hung, and which occupied a partially-screened position in the school, to a site outside the building.

“ The whole of the ground under the floor is cemented, as the high tides are liable to force the ground air into the room.

“ The school was disinfected.

“ The fouling of the beaches by house refuse, often semi-fluid and objectionable, we have tried to prevent before. Now, as the poor people have no reason to commit this nuisance, as refuse is collected for them in Millbrook, the District Council have given instructions to the sanitary inspector to temporarily stop a night or so there in order to get evidence of a case for prosecution. This foreshore is being reclaimed by the District Council, and nothing but formalities now remain to prevent the District Council proceeding with the work.

“ I append a table of cases for 1908, with ages, schools attended, deaths, residences, and monthly incidence.”

MILLBROOK DIPHTHERIA.

No.	Month.	Age.	School.	Death.	
1	January	3	0		Bludwell
2	February	5	Infants'	1	Park Terrace
3	March	14	0	1	13, West Street
4	May	4	Infants'		Molesworth Terrace
5	May	20	Infants'	1	Knell Cross
6	June	5	Devonport School		43, West Street
7	June	4½	Infants'		Manor House
8	July	2	0	1	22, Molesworth Terrace
9	July	3	0		Manor House
10	August	5	Infants'	1	7, St. Andrew's Street
11	August	5	Infants'	1	7, St. Andrew's Street
12	August	8	Girls'		21, Molesworth Terrace
13	August	5	0		21, Molesworth Terrace
—				—	
13				6	Total
—				—	

Isolation Hospital.—We are still without this very necessary adjunct to our means of preventing the spread of infectious diseases. Negotiations are still going on with Saltash, which

I hope will end with the proposed conjoint hospital being erected. This would serve our North district well, but our South District would not reap so much advantage, because of the distance. Torpoint and this district, as I have before mentioned, might well work together. Yet, even with the hospital in the North District, it would be available for South District cases if the people were anxious to make use of it.

For small-pox we are prepared with our little hospital of four beds. As railway works are again shortly to be started in our district we may want it, particularly as efficient vaccination is on the decrease in this district, for two reasons:

1st—The more easy method of procuring exemption.

2nd—The facilities persons have for having vaccination done in one small place, in the Three Towns, a form of vaccination which gives such slight protection as to be of little value.

The housing, on the whole, is sufficient in its accommodation. Two houses have been condemned, and 10 new cottages completed. Cases of overcrowding are nearly all recurrences of the original cases. Removing from one cottage, after notice, these persons enter another of the same size, and overcrowding is again found.

Dairies and Cowsheds.

In a rural district like ours, a great responsibility rests on us as to the condition of the dairies and cowsheds, for here we are dealing with something affecting not only our own district, but those other places which derive their supply of milk and butter from this part of the county. If there is an article of diet more generally used than another, particularly by our rising population, it is milk; and if there is one article of diet more prone to absorb infection, or more open to receive infection than another, from the time of its production till it reaches the consumers, again it is milk or its products. It is therefore clear that too much energy cannot be expended in impressing on our dairy farmers the necessity for care in their business, as to the health of the cows, sanitary condition of buildings, and cleanliness in the handling of this very necessary food. With this end in view we have had printed and circulated a little work by our Sanitary Inspector, which quite meets with my approval, and which, for further circulation and approval, I include in my report.

*Surveyor's Office, Saltash,
April 24th, 1908.*

SOME RECOMMENDATIONS AS TO THE REQUIREMENTS NEEDED TO ENSURE A SAFER SUPPLY OF MILK.

GENTLEMEN,

In a large rural district such as the St. Germans, the question of pure milk supply is one of vast importance, not only from the point of view of the farmer or cowkeeper, but sending, as we do, a large quantity of milk into the towns and boroughs surrounding our district, it has an important bearing upon the health of these towns and boroughs.

The value of an absolute pure milk supply cannot be over-estimated, and it is desirable that every reasonable means should be taken in our district to secure it in as clean and safe a condition as possible.

Milk, as well as being the natural food of infants, is largely used for dieting sick persons and, were it used for no other purpose, this would be sufficient reason why not only the milk itself, but its source and surroundings should be strictly supervised and attended to.

You may at once say that the responsibility of inspection and supervision lies with myself, as Inspector, and the Medical Officer of Health; and to an extent it does, but only to a very small degree. With a district of some 40,000 acres, and with 83 registered cowsheds and dairies, and with a multitude of other duties, it will at once be seen how impossible it is for me to inspect the cowsheds, dairies, etc., more often than once in six months. Often, when I visit, the cows have been milked and are turned out, and the milk taken away.

The real responsibility then of supervising the milk supply lies with you, the registered cowkeeper or dairyman. You are on the spot every day. You control the men. The cows are yours, and your word is law; and, bearing this in mind, I beg, herewith, to point out to you some undesirable conditions I have found existing in the general working of milk supply, and to offer for your consideration some suggestions which, if adopted, would tend towards a better and purer milk supply.

May I at once say I have no desire to endeavour to teach you your business, but to get for the St. Germans district such a condition of milk supply second to none.

FIRST THEN AS TO THE HEALTH OF THE COWS.

It will be admitted by all, that milk from a diseased cow should not be mixed with other milk, and then sold. But, as a matter of fact, I am afraid this is very often done. I do not suggest that this is knowingly done, the farmer, more often than not, being ignorant of any disease in the cow. This is particularly important with reference to tuberculous cows, the milk of which contains the bacillus of tuberculosis, or consumption; and when we take into consideration the immense suffering implied by the mortality from tuberculous diseases alone, stringent measures should be taken by the cowkeeper to prevent any animal suffering from tuberculosis to supply milk for sale. Milk always contains a large number of bacteria which increase and multiply to an alarming extent. Of course, these bacteria are not all harmful or dangerous. Dr. Thresh, medical officer of health for the county of Essex, tells us that those most to be dreaded were those producing diarrhoea, the bacillus of tuberculosis, and the bacillus of typhoid.

It has also been found that heat, up to a certain temperature, tends to increase the production of these bacteria, and cold to hold them in check and decrease. It is, therefore, important that milk be cooled directly it comes from the cow. This preserves the milk, and I am glad to say many farmers and cowkeepers do this. A temperature of 40° F. is considered a good one to maintain. I would respectfully suggest to each cowkeeper that they make it a rule to have the whole of their cows periodically examined by a veterinary surgeon. They would then be assured of the health of the animals (particularly as regards tuberculosis), and if the public knew this was being done they would have greater confidence in the purity of the milk they purchased.

CLEANLY CONDITION OF COWS.

I am afraid little attention is given to cleaning or grooming of cows. I have usually found the cows, whilst kept in sheds, somewhat dirty, and there is little or no pretence to clean them. Owing to the fluid nature of the odour of the cows, it is more difficult to keep them clean than some other animals, but still I do contend that with careful attention it can be done.

I would suggest to you that, before milking, the cows be carefully cleaned, and all manure stains, etc., removed, and that the teats and udder be carefully wiped with a clean cloth, and all stained litter removed. If a horse is groomed, why not a cow?

AS TO THE COWSHED.

Generally these are not satisfactory. Air space is usually maintained, but I do not attach so much importance to this, because the cows in our district are usually turned out. The regulation requires 800ft. per head.

The floors of our cowsheds are generally improper, and are usually composed of hard earth, cobble stones, etc., and with very imperfect and irregular drainage, making it a matter of impossibility to thoroughly wash or cleanse the floor; and I know, if you see the condition of the floors after the manure has been swept out, you would agree as to the desirability of an alteration. The floors should be paved with hard, impervious material, and the surface slope away to a central channel. The standing for the cows is best elevated some inches above the floor immediately behind, where there should be a properly constructed gutter, so that the filth from the cow should, if possible, fall directly into the gutter.

This would, to a great extent, prevent the udders of the cows getting dirty when laying down.

Might I, in passing, say that the ventilation of cowsheds is important and necessary, also the lighting, and should be given careful attention, and bears, very materially, on the general health of the cow.

LIMEWASHING.

The regulations require the *whole* of the interior to be limewashed twice a year. I have frequently noticed that the walls alone have received this attention, and the ceiling, joists, or roof left untouched; and the condition of the ceiling is generally very unsatisfactory, being thick with dust, dirt, and cobwebs. Might I draw your attention to the wording of the regulation—the whole of the interior.

The condition of the approach to the shed is almost invariably unsatisfactory. The ground in front of the shed is generally trodden into a quagmire, and, in passing through to get into the shed, the cows get dirty and carry that dirt into the shed. I find in a number of cases it is the custom to throw the manure from the sheds in a heap just outside the cowshed door, and the drainings from it run over the yard, leaving it in a dirty, liquid state.

YARDS.

The yards should be levelled up to a hard, durable surface, and properly drained.

DRAINAGE.

Of things most defective in our cowsheds drainage is one. I usually find that the liquid and short dung is allowed to run over the courtyard area of the cowsheds, draining away to the lowest point in the yard, and there forming a pool through which the cows often walk. At other times I find it piped away to a field beyond, into a pit, the result of such piping being that short dung, etc., has a tendency to choke the drain and become a nuisance.

The liquid manure and short dung from a cowshed is a very valuable asset to a farmer, for application to land, and it is important that it be collected for that purpose, but in such a manner as to prevent any nuisance occurring.

I would suggest, as the best means of accomplishing this, that—

A small concrete, or brick cement rendered watertight tank, of capacity sufficient for, say, three days' drainage, be put down immediately outside the cowshed wall. That this tank be fitted with airtight, cast iron cover, which can easily be lifted for cleaning out. An appliance for cleaning out this pit is easily procurable, in the form of a bucket dipper with a wooden handle affixed. The dipper is easily worked by a man standing over the pit.

If this plan were adopted, the nuisance of dirty and defective drainage would easily be overcome, but then only with the co-operation of the cow-keeper, who would have to conscientiously keep the pit from overflowing by seeing it was regularly cleaned out.

The manure should be placed in a barrow and wheeled some distance from the cowshed, and not accumulated outside.

MILKING.

With regard to the person who milks the cow, it is absolutely an essential that he be perfectly clean, that his hands be free from any sore, cut, eruption, etc. I am sorry to say I have seen milkers with sores on their hands, and I think you will admit this to be very undesirable.

The milker should wear a clean, white overall when milking, and his hands be washed before he begins, and the teats of the cow carefully cleaned.

I have found it the custom in some cases, after milking the cow, to empty the milk into an open vessel standing in the cowshed. It would be better if this was at once taken to a house, attached to the cowshed, properly paved, and kept for the purpose of receiving and cooling the milk.

The water supply to a cowshed is very important. Great care is necessary in this respect. Cattle should not be allowed to drink from any and every stream. Very often I have found cattle drinking from a stream receiving a certain amount of drainage.

See that your cattle have a sufficient and pure supply, and that some arrangement is made to keep a supply in the cowshed ready for use, also towels and cloths.

DAIRIES.

Cleanliness in dairies is very important, for in these milk is stored.

Dairies should have impervious floors, and stone or slate shelves, be well lighted and ventilated.

I frequently find dairies turned into larders, where, besides milk, butter, cream, etc., there is deposited bacon, meat, vegetables, etc. This causes a number of flies to enter the dairy, and the danger of the spread of infection from these insects is well known.

Professor Delespine and Dr. Niven, after an exhaustive research, say:

“Infantile diarrhoea and simple cholera, which claims such an enormous death toll, is due, principally, to the infection in milk, carried by the fly.”

The dairy should be a dairy alone, and not a larder.

Dr. Meadows, Medical Officer of Health, in his annual report for 1907, says:

“I would, and do, impress on all persons who store milk the necessity of properly excluding flies from milk. I sometimes find that, for ventilation, doors and windows are left open and unprotected, allowing flies to enter and drop in and die in the milk pans. I am of the strongest opinion that flies are carriers of infection and offensive matter, and that it is a matter of the greatest importance that all milk should be protected against them by wiring the windows, and, as a secondary precaution, covering the milk pans with gauze.”

I have also often found pans of milk standing to cool in passages and kitchens, where people are moving about and stirring up dust.

This custom cannot be too strongly condemned, and should never be allowed.

With regard to washing of utensils, this should always be done with boiling water, and in a separate house kept for the purpose, and not anywhere and from any stream, and be stored in this house until again required.

You will, of course, see how impossible it is to fully set forth all the requirements in so short a report, and I have, therefore, only touched on the more important.

To carry out my suggestions will, first of all, take a good deal of time and a certain amount of money, and I do not expect you all to be unanimous in their adoption; on the other hand, if my suggestions were adopted, I feel sure we should have made strides towards procuring a pure milk supply, and the reduction of infantile mortality due to impure milk.

I shall be willing, at any time, to come to any cowshed or dairy, and give you my opinion on the best way of altering existing cowsheds, or building new ones that would embrace my suggestions.

In conclusion, I have appended a summary of my suggestions.

OUTSIDE THE SHEDS.

Condition of yard and approach to the shed.—The yard to be levelled up to a hard surface, well drained, and kept clean.

The approach to be on a gentle slope (if possible), and even, hard and drained, to prevent being trodden up by the cows on entering the shed.

The manure to be placed on a barrow, and wheeled and deposited a suitable distance (say 15 yards) from the entrance of the shed.

INSIDE THE SHEDS.

Air Space.—800 cubic feet for each cow.

Ventilation.—About one square foot inlet and outlet per cow.

Lighting.—Sufficient to clearly see when at work.

Floor.—Evenly paved with hard, impervious material, channelled and drained to discharge into small tight cess-pit or drain outside shed.

Water Supply.—Sufficient for cleansing purposes of milkers and cows, and washing of cowshed.

Cleaning of Shed.—Sufficient litter and removal of manure after each milking, and the channels washed out with sufficient water every day.

Limewashing.—All parts of the interior, twice a year, and even more often is desirable.

Cleaning Utensils.—Washed with boiling water after each time of use.

Condition of Milker.—The milker to wear a clean overall gown, and his hands to be washed on every occasion before milking.

Cleansing of Cows.—The cow's teats to be cleansed before milking, and the cow's body to be kept clean by grooming.

Dairies.—Nothing but cream, butter, milk, etc., to be kept therein. Well ventilated, often limewashed, impervious floors, and pans of milk carefully covered with fine gauze.

I trust that all cowkeepers, etc., will receive these suggestions in the spirit in which they are given, viz., the assuring of a purer milk supply and the benefit of the community at large.

I am, gentlemen,

Yours, obediently,

J. ALEC ANDREWS, M.R.S.I., M.I.S.E.,

Certificated Inspector of Nuisances.

Many of the foregoing requirements are recommendations only, and are meant to be a help to those wishing to have their premises up-to-date in their sanitary conditions; but some are absolutely essential, but very often ignored, particularly as to the paving of cowsheds. It

seems that in our regulation under the Cowsheds' and Dairies' Act we have no power to insist on such form of pavement which would make it possible to carry out the regulation as to sweeping and cleansing. You cannot clean from excreta an earth floor, or an unevenly-cobbled surface, nor can such surfaces be properly drained; yet some in this condition are still to be found in our district. A bye-law on this point would be of assistance in getting this necessary work carried out in cases of those who will not recognise their responsibility.

With the exception of this pavement question, and also the incomplete exclusion of flies from milk, I have found our dairies and cowsheds clean and healthy.

On account of sewage pollution, two wells have been condemned.

Fifty-three notices were served, during the year, on owners and occupiers, requiring abatement of nuisances or sanitary defects. These have all been complied with except two. These two will again come before the District Council.

The Midwives' Act is inoperative in this district, as there are only two—and these district nurses—for our 41,888 acres. How this is to be overcome is a serious question in such a scattered district.

The slaughter houses have been kept clean and wholesome, and no complaints have been received about them.

The Factory and Workshops' Act is carried out, and work-places are kept clean. No steps as regards infectious diseases in these places have had to be taken. No complaints have been received, and the Sanitary Inspector has not had to refer any cases requiring attention. We have no trades affecting the health of workers as in some other districts.

ST. GERMANS DISTRICT.

The sewerage of Sea View Hotel and the (formerly) coastguard cottages referred to in my last report has been dealt with. A new sewer has been constructed so that the fouling of the beach should not again take place. The defective middens at Craffhole have been removed, and two short lines of sewers carried to two properly-constructed cess-pits. The sewerage of Port Wrinkle is about to be settled. Here, the sewer discharging into the sea will serve for the present houses, the new hotel, and the new houses expected to be built.

SOUTH DISTRICT.

The sewerage of Millbrook has been completed by the diversion and destruction of one part, and by the increase of flushing arrangements. At Kingsand there is much complaint on account of shortness of water, partially due to the leaking from the Watergale Reservoir,

which makes storage of water impossible. This is a condition the District Council might well remedy.

The plans and all necessary forms for the filling in of the mud-flat at Millbrook are now, and have for some time been completed. I hope this work will be proceeded with shortly, as it will be of the greatest value to Millbrook.

NORTH DISTRICT.

No important work has been carried out in this district this year except the treatment of the overflow from Tideford cess-pit ; but there are several cases here which I hope the Council will deal with during 1909.

At Landrake a short sewer connecting with our present one outside Pounds would serve several cottages which are without any provision. The overflow from the well should be disconnected from the sewer. (This has now been ordered to be done at once). The sewerage of St. Stephens village presents some legal difficulties. This has been before you, and, I know, is being dealt with. Could not a larger scheme of carrying a sewer to Forder—which would also serve Forder, which is in want of some better form of excrement disposal—be carried out ? It might also be made to deal with Russel Terrace, and do away with the annual rental for the use of the adjoining district's sewers. This is the direction in which the sewerage of this district will ultimately be carried, and we know that the land on its course is open for sale for building.

I wish to again bring before you the condition of Antony Passage water supply. The usual complaints have been made to me. I gather that the tides affecting this well have been more numerous this year, due to the direction of the wind at high tides. This has meant more days without water for this village. To have this number of houses for days together, nearly every month, without any water—without any possibility of obtaining any other, because the river pollutes their only well, through the subsoil, filling it with salt and dirty water, which has to be pumped out before the well can again be used—is not, to say the least of it, a satisfactory sanitary condition of affairs.

I remain, Gentlemen,

Your obedient servant,

R. T. MEADOWS.

February, 8th, 1909.